

DESCRIPTION OF A NEW SPECIES OF *NOCTICANACE* MALLOCH  
(DIPTERA: CANACIDAE) FROM SRI LANKA WITH  
NOTES ON TWO RELATED SPECIES

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*Abstract.*—*Nocticanace taprobane* from Sri Lanka is described and compared with two closely related species, *N. mahensis* (Lamb) and *N. sinensis* Delfinado. Appropriate illustrations are provided.

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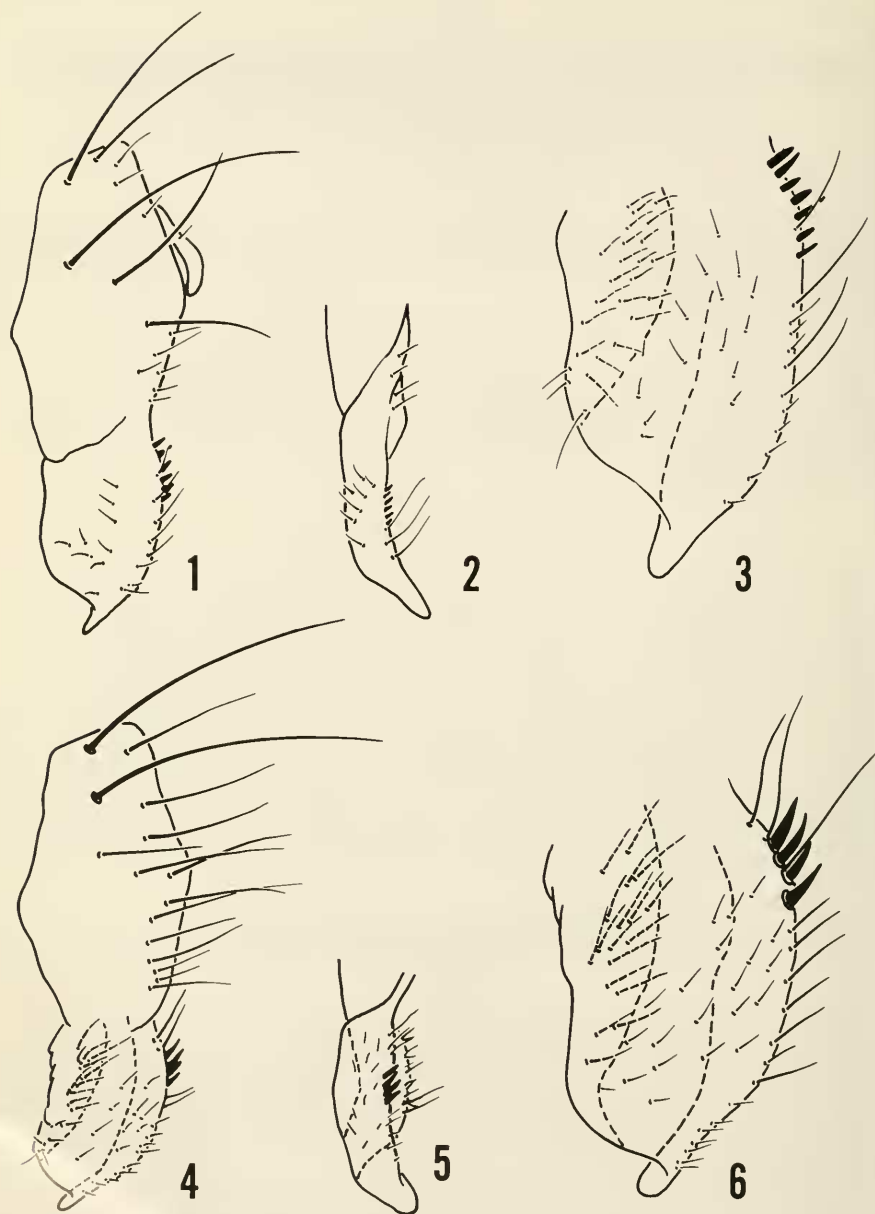
Based on specimens collected by the Lund University Ceylon Expedition in 1962, Delfinado (1975) reviewed the beach fly fauna of Sri Lanka (Ceylon). Delfinado described two new species, each in a separate genus, *Chaetocanace brincki* and *Xanthocanace zelanica*, and included notes on a third genus and species, *Procanace grisescens* Hendel. During a collecting trip to Sri Lanka in 1980, I collected specimens of a fourth genus, *Nocticanace* Malloch, all of which are apparently conspecific and represent a new species. This species is described herein. Notes and illustrations of two closely related species, *N. mahensis* (Lamb) and *N. sinensis* Delfinado, are included for comparative purposes.

*Nocticanace taprobane* Mathis, NEW SPECIES

Figs. 1-3

*Diagnostic description.*—This species belongs to a species-group of *Nocticanace* which lacks an anterior notopleural bristle and has the apical scutellar bristles anaclinate. Within that group, it is distinguished from related congeners, particularly *N. mahensis* and *N. sinensis*, by the following characters, mostly from the male terminalia: Small to moderately small beach flies, length 1.65 to 2.31 mm.

Male terminalia (Figs. 1-3) as follows: Surstylus a single, ventrally projected lobe, moderately wide, tapered abruptly ventrally to form a moderately long, slender, ventral process, posterior margin with approximately 6 short, stout setae.



Figs. 1-3. *Nocticanace taprobane*. 1, External male terminalia, lateral view. 2, Surstylus, posterior view. 3, Surstylus, lateral view. Figs. 4-6. *N. mahensis*. 4, External male terminalia, lateral view. 5, Surstylus, posterior view. 6, Surstylus, lateral view.

Type-material.—Holotype ♂ is labeled "SRI LANKA: Gal[le]. Dist[ri]ct. Mirigama 26 April 1980/Collectors: W. N. Mathis[,] T. Wijesinhe[,] L. Jayawickrema." Allotype and 28 paratypes (11 ♂, 17 ♀; USNM) bear the same label data as the holotype. Other paratypes are as follows: SRI LANKA. Trincomalee District: Nilaveli (5 km N) 3 May 1980, W. N. Mathis, T. Wijesinhe, L. Jayawickrema (2 ♂, 1 ♀; USNM). Hambantota District: Kirinda, 25 Apr 1980, W. N. Mathis, T. Wijesinhe, L. Jayawickrema (9 ♂, 18 ♀; USNM). The holotype is double mounted (minute nadel in plastic block), is in excellent condition, and is in the Smithsonian Institution, Washington, D.C., USNM 100224.

Remarks.—This species and *N. mahensis* are very closely related, as evidenced by the similar conformation of the male terminalia of both species, and I can distinguish between them by the shape of the apical process of the surstylus, which is more slender, and by the number and size of the stout setae along the posterior margin of the surstylus.

The specific epithet, *taprobane*, is the classical Greek name for Sri Lanka and is a noun in apposition.

*Nocticanace mahensis* (Lamb)

Figs. 4–6

*Canace mahensis* Lamb, 1912: 328.

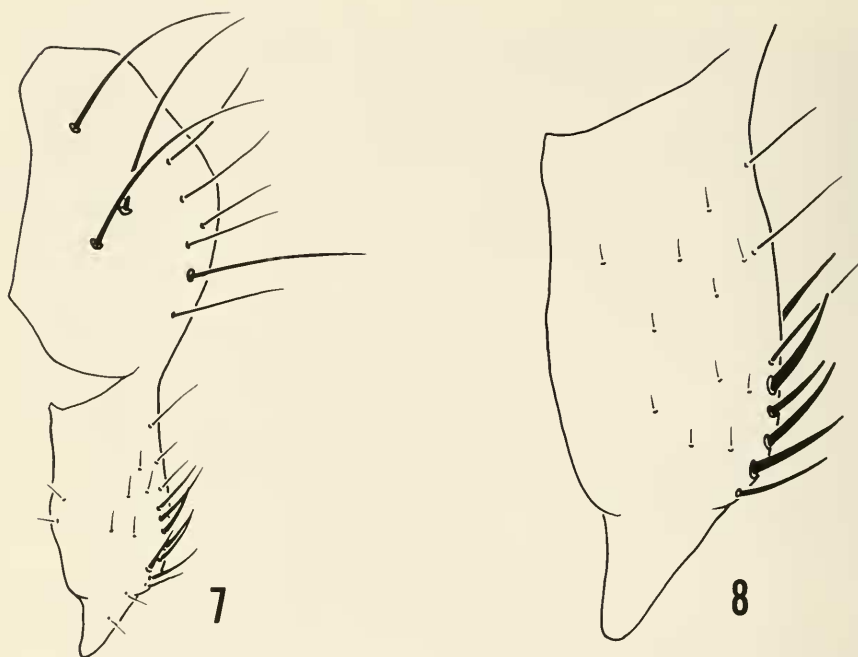
*Nocticanace mahensis*: Wirth, 1951: 274.

Type-material.—Holotype ♀ is labeled "Type H. T. [disc with red border]/Seychelles Is[land]. Prof. J. S. Gardiner. 1914-537/Seaweed [handwritten in pencil]/TYPE *Canace mahensis*. Lamb — [??, I cannot decipher what is written after "Lamb"; "TYPE" black on blue, printed; otherwise label black on white, handwritten]." The holotype is double mounted (minute nadel in cork block; block has "107" handwritten on top), is in good condition, and is in the British Museum (Natural History), London.

Remarks.—The illustrations of the male terminalia are from a topotypical specimen that was compared with the female holotype.

This species is apparently closely related to *N. sinensis* and *N. taprobane*, as evidenced by the similar shape of the surstylus in all three species. When viewed from slightly different angles, their surstyli can be positioned to appear to be virtually identical. From a direct lateral view, however, there are consistent differences, and I can only conclude that three species are represented. Externally all three species are inseparable.

Male terminalia (Figs. 4–6) are as follows: Surstylus generally comparatively wide, narrowed abruptly ventrally to form rather narrow, short ventral process; ventral process moderately tapered, especially in posterior view; posterior margin with 3–5 short, stout setae on dorsal half of surstylus.



Figs. 7, 8. *Nocticanace sinensis*. 7, External male terminalia, lateral view. 8, Surstylus, lateral view.

*Nocticanace sinensis* Delfinado

Figs. 7, 8

*Nocticanace sinensis* Delfinado, 1971: 120.

Type-material.—Holotype ♀ is labeled "HONG KONG: N. T. Sai Kung Station 27. I. 1965/W. J. Voss & Hui Wai Ming Light Trap BISHOP MUS./ ♀ [handwritten in pencil]/HOLOTYPE ♀ *Nocticanace sinensis* Md. [Mercedes Delfinado; handwritten, black on pink]." The holotype is double mounted (glued to a paper point), is in poor condition (the body is covered with lepidopteran scales, several legs and setae are missing), and the abdomen has been removed (the terminalia and other structures of the abdomen are slide mounted). The holotype is deposited in the B. P. Bishop Museum, Honolulu, Hawaii.

Remarks.—This species is evidently closely allied to *N. mahensis*, as the shape of the surstylus of both species is very similar, although consistently differs (Figs. 7, 8) as follows: Surstylus generally more slender; ventral projection long, somewhat triangular, with distinct taper; posterior margin with several long stout setae, especially on ventral half.

## ACKNOWLEDGMENTS

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## LITERATURE CITED

- Delfinado, M. D. 1971. New species of shore flies from Hong Kong and Taiwan (Diptera: Canaceidae). *Orient. Insects* 5(1): 117-124.
- . 1975. Diptera: Canaceidae from Ceylon. Pp. 221-223. *In* Reports from the Lund University Ceylon Expedition in 1962, Vol. II. *Entomol. Scand. Suppl.* 4.
- Lamb, C. G. 1912. The Percy Sladen Trust Expedition to the Indian Ocean in 1905, under the Leadership of Mr. J. Stanley Gardiner. M. A. Vol. IV. No. XIX. Diptera: Lonchaeidae, Sapromyzidae, Ephyridae, Chloropidae, Agromyzidae. *Trans. Linn. Soc. Lond.* (2) 15: 303-3458.
- Wirth, W. W. 1951. A revision of the Dipterous Family Canaceidae. *Occas. Pap. Bernice Pauahi Bishop Mus.* 20(14): 245-275.